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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/677,945	REDI ET AL.	
	Examiner	Art Unit	
	Mon Cheri S. Davenport	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-33 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-33 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 02 October 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date See Continuation Sheet.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/2/2003, 12/11/2006, 2/5/2007, 4/27/2007, and 5/29/2007.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1 and 3, 16, 27-28 and 32** rejected under 35 U.S.C. 102(b) as being anticipated by Bernhardt et al. (US Patent Number 5,710,975).

Regarding **Claim 1 and 27-28** Bernhardt et al. discloses a communications network comprising:

a first node that comprises at least one transceiver and is configured to***(see figure 1, section 20, selective call transceiver):***

observe one or more conditions in at least one of the communications network and the first node***(see col. 1-2, lines 66-2, the selective call transceiver has unique address for receiving messages sent by the transmitter (monitoring communication in network),***

select a sleep mode (power saving interval)of a plurality of sleep modes based on the observed one or more conditions, each sleep mode of the plurality of sleep modes being associated with a different procedure***(see col. 3, lines 12-17, the power saving interval is selected by the selective call transceiver, the power saving interval is variable(plurality) depending on conditions),*** and

power down the at least one transceiver according to the procedure associated with the selected sleep mode; and

a plurality of neighboring nodes***(see figure 4, section 78, transceiver enter into a power saving state, for the selected power saving interval).***

Regarding **Claim 3 and 16** Bernhardt et al. discloses everything as applied above (*see claim 1 and 14*). In addition the communications network includes:

wherein the plurality of sleep modes includes at least four sleep modes, and

in response to selecting a first sleep mode of the at least four sleep modes, the first node, when powering down, is configured to ***(see figure 4, section 74 and 76, transceiver get an ACK. from the system after selecting powers saving mode):***

set a sleep timer to a first period of time***(see col. 5, lines 50-54, the power saving interval is set, using the allowed time interval)***

buffer outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and power down the at least one transceiver for the first period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time).***

Regarding **Claim 27** Bernhardt et al. discloses a computer-readable medium including a plurality of instructions that, when executed by at least one processor, causes the at least one processor to perform a method for conserving power in a node of a communications network, the node including at least one transceiver, the method comprising:

monitoring one or more conditions in the communications network***(see col. 1-2, lines 66-2, the selective call transceiver has unique address for receiving messages sent by the transmitter (monitoring communication in network)***;

selecting one of a plurality of sleep modes(power saving interval) based on the monitoring, each sleep mode of being associated with a different powering down procedure and a sleep duration***(see col. 3, lines 12-17, the power saving interval is selected by the selective call transceiver, the power saving interval is variable(plurality) depending on conditions)***; and

powering down the at least one transceiver for the sleep duration and in accordance with the powering down procedure associated with the selected sleep mode***(see figure 4, section 78, transceiver enter into a power saving state, for the selected power saving interval)***.

Regarding **Claim 28** Bernhardt et al. discloses everything as applied above (*see claim 27*). In addition the computer-readable medium includes:

wherein the plurality of sleep modes includes at least four sleep modes, and

in response to selecting a first sleep mode of the at least four sleep modes, the powering down includes***(see figure 4, section 74 and 76, transceiver get an ACK. from the system after selecting powers saving mode)***:

setting a sleep timer to a first period of time***(see col. 5, lines 50-54, the power saving interval is set, using the allowed time interval)***,

buffering outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

powering down the at least one transceiver for the first period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

Regarding **Claim 32** Bernhardt et al. discloses a system for conserving power, the system comprising:

means for monitoring one or more conditions in a node of communications network***(see figure 1, section 20, selective call transceiver)***;

means for selecting a sleep mode ***(see figure 4, section 20, tranceiver, see col. 5, lines 21-28, the user control select variable power saving interval)*** see of a plurality of sleep modes **(power saving intervals)** based on the monitored one or more conditions, each sleep mode of the plurality of sleep modes being associated with a different powering down procedure***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (period of time))***; and

means for powering down***(see figure 3, section 48, CPU, see col. 5, lines 56-57, the CPU causes all the functional blocks to be turned off),*** at least one device in the node according to the powering down procedure associated with the selected sleep

mode***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 2 and 15** rejected under 35 U.S.C. 103(a) as being unpatentable over Bernhardt et al in view of Redi et al. (US Patent Application Publication 2002/0071395).

Regarding **Claim 2 and 15** Bernhardt et al. discloses everything as applied above (*see claim 1 and 14*). In addition the communications network includes:

amount of time since the first node has powered down ***(see col. 2, lines 34-42, periodically the power is removed from the transceiver based on a power saving interval)*** .

However Bernhardt et al. fail to specifically point out wherein the one or more conditions include traffic volume, an amount of power remaining in a power supply associated with the first node as claimed.

Redi et al. discloses wherein the one or more conditions include traffic volume***(see paragraph[0069], line 18-22] monitoring condition is based on the amount of traffic transmitted from on node to another (traffic volume)*** , an amount of power remaining in a power supply associated with the first node as claimed***(see figure 6, section S4, network use the energy information(power supply)see paragraph [0064]).***

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with the condition of traffic volume and power remaining as a condition because this would

further allow message receivers to attain greatly improved battery life (Bernhardt et al. see col. 1, line 34-35)

5. **Claims 4-13 and 17-26** rejected under 35 U.S.C. 103(a) as being unpatentable over Bernhardt et al.

Regarding **Claim 4 and 17** Bernhardt et al. discloses everything as applied above (*see claim 3*). In addition the communications network includes:

transmit a link-level broadcast to the at least one neighboring node***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node),***

(see col. 5, line 28-31, the duration of the time interval is selected, which is variable)

buffer outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

power down the at least one transceiver for the second period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

However Bernhardt et al. fail to specifically point out wherein in response to selecting a second sleep mode of the at least four sleep modes, the first node, when powering down, is configured to: set the sleep timer to a second period of time, the second period of time being longer than the first period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with second sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 5 and 18** Bernhardt et al. discloses everything as applied above (*see claim 4 and 17*). In addition the communications network includes:

wherein the link-level broadcast includes information identifying the first node and the second period of time ***(see col. 3, lines 51-61, a data packet is sent to a selective call transceiver including identity information including source address, destination, sequence number, routing information, billing information, power saving message).***

Regarding **Claim 6 and 19** Bernhardt et al. discloses everything as applied above (*see claim 5 and 18*). In addition the communications network includes:

wherein the at least one neighboring node is configured to***(see figure 1, section 20, selective call transceiver)***:

receive the link-level broadcast***(see col. 1-2, lines 66-2, the selective call transceiver has a unique address for receiving messages sent by the transmitter),***

buffer packets destined for the first node until the timer expires***(see col. 3, lines 3-5, during the power saving interval the system stores messages intended for the selective call transceiver).***

However Bernhardt et al. fail to specifically point out that setting a timer based on the second period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with second sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 7 and 20** Bernhardt et al. discloses everything as applied above (*see claim 4 and 17*). In addition the communications network includes:

transmit a point-to-point message to each of the at least one neighboring node***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node),*** the point-to-point message causing each of the at least one neighboring node to transmit-an acknowledgment message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***,

buffer outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

power down the at least one transceiver for the third period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

However Bernhardt et al. fail to specifically point wherein in response to selecting a third sleep mode of the at least four sleep modes, the first node, when powering down, is configured to:

set the sleep timer to a third period of time in response to receiving the acknowledgement message from each of the at least one neighboring node, the third period of time being longer than the second period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with third sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 8 and 21** Bernhardt et al. discloses everything as applied above (*see claim 7 and 20*). In addition the communications network includes:

wherein the point-to-point message includes information identifying the first node and the third period of time***(see col. 3, lines 51-61, a data packet is sent to a selective call transceiver including identity information including source address, destination, sequence number, routing information, billing information, power saving message).***

Regarding **Claim 9 and 22** Bernhardt et al. discloses everything as applied above (*see claim 8 and 21*). In addition the communications network includes:

wherein the at least one neighboring node is configured to:

receive the point-to-point message***(see col. 1-2, lines 66-2, the selective call transceiver has a unique address for receiving messages sent by the transmitter)***,

transmit the acknowledgement message to the first node in response to receiving the point-to-point message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***,

set a timer based on the third period of time, and, buffer packets destined for the first node until the timer expires***(see col. 3, lines 3-5, during the power saving interval the system stores messages intended for the selective call transceiver).***

Regarding **Claim 10 and 23** Bernhardt et al. discloses everything as applied above (*see claim 7 and 20*). In addition the communications network includes:

transmit a routing application message to each of the at least one neighboring node***(see col. 4, lines 61-64, the powers saving process begins with a start instruction(routing application message) which is sent to the communication system node)***, the routing application message causing each of the at least one neighboring node to transmit a second acknowledgment message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***,

buffer outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

power down the at least one transceiver for the fourth period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (fourth period of time))***.

However Bernhardt et al. fails to specifically point out wherein in response to selecting a fourth sleep mode of the at least four sleep modes, the first node, when powering down, is configured to: set the sleep timer to a fourth period of time in response to receiving the second acknowledgement message from each of the at least one neighboring node, the fourth period of time being longer than the third period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with fourth

sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 11 and 24** Bernhardt et al. discloses everything as applied above (*see claim 10 and 23*). In addition the communications network includes:

wherein the routing application message includes information identifying the first node and the fourth period of time***(see col. 3, lines 51-61, a data packet is sent to a selective call transceiver including identity information including source address, destination, sequence number, routing information, billing information, power saving message).***

Regarding **Claim 12 and 25** Bernhardt et al. discloses everything as applied above (*see claim 11 and 24*). In addition the communications network includes:

wherein the at least one neighboring node is configured to:

receive the routing application message***(see col. 1-2, lines 66-2, the selective call transceiver has a unique address for receiving messages sent by the transmitter)***,

transmit the second acknowledgement message to the first node in response to receiving the routing application message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***,

transmit a message to one or more neighboring, nodes of the at least one neighboring node, the message informing the one or more neighboring nodes that the first node is entering the fourth sleep mode***(see col. 5, line 38-48, the user select a***

power saving interval, this cause the transceiver to transmit to the communication system a signal indicating request, stores it in memory),

set a timer based on the fourth period of time, remove the first node from one or more routing tables associated with the neighboring node **(see col. 5, line 44-46, saved in memory is the fact of transceiver is in power saving state(being removed from an active state status)),** and buffer packets destined for the first node until the timer expires***(see col. 5, lines 59-61, the system will now send no messages to the transceiver until the power saving interval has ended).***

Regarding **Claim 13 and 26** Bernhardt et al. discloses everything as applied above (*see claim 12 and 25*). In addition the communications network includes:

wherein the at least one neighboring node is further configured to: making the first node available in the one or more routing tables after the timer expires ***(see col. 5-6, lines 65-10, the transceiver sends a message to the system indicating that the transceiver is once again active and able to communicate with the system, the system then sends ACK, the transceiver is in the fully active state(remove from the not available table)) .***

Regarding **Claim 29** Bernhardt et al. discloses everything as applied above (*see claim 28*). In addition the computer-readable medium includes:

transmitting a link-level broadcast to one or more neighboring nodes***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node)***,

buffering outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

powering down the at least one transceiver for the second period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

However Bernhardt et al. fail to specifically point out wherein in response to selecting a second sleep mode of the at least four sleep modes, the powering down the at least one transceiver for the sleep duration includes: setting the sleep timer to a second period of time, the second period of time being longer than the first period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with second sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20).

Regarding **Claim 30** Bernhardt et al. discloses everything as applied above (*see claim 29*). In addition the computer-readable medium includes:

transmitting a point-to-point message to each of the one or more neighboring nodes***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node)***, the point-to-point message causing each of the one or more-neighboring nodes to transmit an acknowledgment message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***,

buffering outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

powering down the at least one transceiver for the third period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (second period of time))***.

However Bernhardt et al. fail to specifically point out in response to selecting a third sleep mode of the at least four sleep modes, the powering down the at least one transceiver for the sleep duration includes: setting the sleep timer to a third period of

time in response to receiving the acknowledgement message from each of the one or more neighboring nodes, the third period of time being longer than the second period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with third sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 31** Bernhardt et al. discloses everything as applied above (*see claim 30*). In addition the computer-readable medium includes:

transmitting a routing application message to each of the one or more neighboring nodes***(see col. 4, lines 61-64, the powers saving process begins with a start instruction(routing application message) which is sent to the communication system node)***, the routing application message causing each of the

one or more neighboring nodes to transmit a second acknowledgment message***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***, and remove the node from at least one routing table associated with the neighboring node**(see col. 5, line 44-46, saved in memory is the fact of transceiver is in power saving state(being removed from an active state status))**,

buffering outgoing packets***(see col. 3, lines 10-11, the system start sending any stored messages after the power saving interval has ended indicating that outgoing packets are buffered(stored))***, and

powering down the at least one transceiver for the fourth period of time***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (fourth period of time))***

However Bernhardt et al. fail to specifically point out wherein in response to selecting a fourth sleep mode of the at least four sleep modes, the powering down the at least one transceiver for the sleep duration includes: setting the sleep timer to a fourth period of time in response to receiving the second acknowledgement message from each of the one or more neighboring nodes, the fourth period of time being longer than the third period of time as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of

the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with fourth sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Regarding **Claim 33** Bernhardt et al. discloses a method for conserving power in a communications node that includes at least one transceiver, comprising:

selecting a sleep mode from a group that includes at least four sleep modes**(power saving interval)**(***see col. 5, lines 21-28, the user control selects variable power saving interval***), a first sleep mode of the group including powering down the at least one transceiver without notifying neighboring nodes***(see col. 6, line 16-18, the user can elect to manually reset the power saving interval, when this manual process is implemented, it does not notify neighboring nodes)***

including powering down the at least one transceiver after transmitting a link-level broadcast to neighboring nodes***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node)***,

including powering down the at least one transceiver after transmitting a point-to-point message to each neighboring node***(see col. 4, lines 61-64, the powers saving process begins with a start instruction which is sent to the communication system node)*** and receiving a first, acknowledgement message from each neighboring node***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***, and

including powering down the at least one transceiver after transmitting a routing application message***(see col. 4, lines 61-64, the powers saving process begins with a start instruction(routing application message) which is sent to the communication system node)***, to each neighboring node that causes each neighboring node to remove the communications node from its routing tables and receiving a second acknowledgement message from each neighboring node***(see col. 2, line 60-62, the communication system node responds by sending an acknowledgement signal)***; and

powering down the at least one transceiver in accordance with the selected sleep mode***(see col. 5, line 48-51, the selective call transceiver send an ACK. Signal allowing the processor to complete any communication, then enters the power saving mode for interval of time selected (period of time))***.

However Bernhardt et al. fail to specifically point out a second sleep mode of the group, a third sleep mode of the group, and a fourth sleep mode of the group as claimed.

Bernhardt et al. discloses (see col. 5, line 28-31, the duration of the time interval is selected, which is variable) which teaches that various time period call be selected, it is preferable that the duration of the power saving interval be variable so that the user of the selective call transceiver may select either a short power saving interval or a longer power saving interval. It would be understood that selecting a long power saving interval would increase the life of the battery in the selective call transceiver at the expense of latency. Thus, if a long latency period is acceptable to the user, then the user can select a longer power saving interval. Conversely, if the user requires a short latency, a shorter power saving interval will be selected see col. 3, lines 13-26).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Bernhardt et al. invention with second, third and fourth sleep mode time interval because selecting a long power saving interval would increase the life of the battery at the expense of latency (see Bernhardt et al., col. 3, lines 17-20)

Citation of Pertinent Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lagrotta et al. (US Patent Number 6,477,361) see abstract.

Balachandran et al. (US Patent Application Publication 2004/0230638) see abstract.

Larsson et al. (US Patent Number 6,463,307) see abstract.

Kari (US Patent Number 6,243,579) see abstract.

Suzuki et al. (US Patent Number 5,301,225) see abstract.

Haverinen et al. (US Patent Number 7,142, 520) see abstract.

Romans (US Patent Number 6,564,074) see abstract.

Henry (US Patent Number 5,590,396) see abstract.

Naden (US Patent Application Publication 2002/0146985) see abstract.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
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